

REMARKS

The Office Action mailed April 20, 2005 has been carefully reviewed along with the references cited therein. In the Office Action, the Examiner rejected claims 21-22 and 24-26 under 35 U.S.C. § 102(b) as being anticipated by Zhang (U.S. Publication No. 2002/0136025). Claims 1-7, 9-16, and 23 were rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang in view of English (U.S. Publication No. 2003/0063476). Claim 8 was rejected as being unpatentable over Zhang and English, as applied to claim 1, and further in view of Grenga et al. (U.S. Patent No. 5,394,317).

Claim 1 has been amended to include a limitation similar to original claim 8. Claim 8 was rejected as being unpatentable over Zhang and English and further in view of Grenga et al. In rejecting claim 8, the Examiner indicated that Grenga et al. disclosed a lamp in which the reflector 12 includes a cusp 46 and a facet 12. In fact, Grenga et al. fail to disclose and teach away from a reflector that includes any facets. See for example the Abstract for Grenga et al. that states “[a] reflecting layer is bonded directly to the molded member to provide a reflector surface without facets or sharp angles.” Furthermore, in the SUMMARY OF THE INVENTION section at column 3, line 9, Grenga et al. teach that “the continuous curved shape of the reflector eliminates angled and faceted portions[.]” Accordingly, the combined references fail to teach or suggest each limitation cited in amended claim 1. In view of the above, Applicants respectfully submit that claim 1, and those claims that depend from claim 1, define over the cited references.

Claim 9 has been amended to include the limitation of original claim 14 and “an LED mounted to said bridge between the lateral walls such that the lateral walls act as a shield for said LED.” In rejecting claim 14, the Examiner indicated that Zhang teaches a bridge 31 that includes lateral walls 311, 312 depending toward the reflector 11. In Zhang, the LED is not mounted between the lateral walls such that the lateral walls act as a shield for the LED. Furthermore, one skilled in the art would not modify Zhang such that the LED is mounted between the lateral walls. As seen in paragraph [0034], Zhang teaches the solution to increase the light intensity of the light source unit to be increasing the width of the supporting arms 311, 312, which is the dimension perpendicular to the focal point of the reflector, to provide more current to the light source without blocking light. By providing lateral walls where the lateral walls act as a shield for the LED, the supporting arms 311 and 312 would necessarily have an increased thickness, which is directly contrary to the

teachings of Zhang. Accordingly, it is submitted that claim 9 as amended, and those claims that depend from claim 9, define over the cited the references.

Claim 21 has been amended to include a limitation “an LED attached to the bridge and facing the reflector, the reflector being shaped such that light striking the reflector directly behind the bridge is directed to either side of the bridge.” Zhang fails to disclose that the reflector 11 is shaped to reflect light striking the reflector directly behind the bridge to either side of the bridge. In paragraph [0030] Zhang describes the inner semi-spherical surface of the bowl shaped reflecting member 11. Nowhere does he indicate that the reflector is shaped to direct light to either side of the bridge. Furthermore, a semi-spherical surface would not necessarily direct light away from the bridge. In fact, Zhang discloses in FIGURE 2 that light is reflected by the reflector perpendicular to the supporting arms, which would seem to indicate that Zhang has taken no measures to direct light striking the reflector directly behind the supporting arms to either side of the supporting arms. To increase the light intensity of the light source unit 20, Zhang increases the width, i.e. dimension that is perpendicular to the reflector 11, of the supporting arms 311, 312 that make up the supporting bridge 31. By doing this, more current is delivered to the light source because the arms 311, 312 can carry a larger current. Instead of shaping the reflector to reflect light to either side of the bridge, Zhang attempts to minimize the thickness of the bridge therefore minimizing the light that contacts the bridge. Zhang teaches an entirely different solution to the problem and provides no motivation to modify the reflector such that light striking the reflector directly behind the bridge is directed to either side of the bridge. Accordingly, claim 21 as amended define over the cited references.

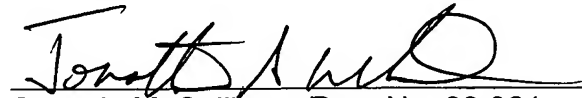
Claims 27-30 have been added to the application. Zhang fails to disclose the reflector being contoured such that light striking the reflector not directly aligned with the bridge is directed toward a center of a light beam pattern. As seen in FIGURE 2, the light reflected by the reflector 11 is directed not toward a center of a light beam pattern, but rather parallel with a center of a light beam pattern. Zhang also fails to disclose a reflector having an M-shaped contour in a cross-section. Zhang further fails to disclose an LED being mounted on circuit board and the circuit board attaching to the bridge. Nor does Zhang disclose that the circuit board comprises a thermally conductive material. Accordingly, claims 27-30 further define over Zhang.

CONCLUSION

For the reasons detailed above, it is respectfully submitted all claims remaining in the application are now in condition for allowance. Accordingly, an early indication of the same is earnestly solicited. In any event, should the Examiner consider personal contact advantageous to the disposition of this case, he is encouraged to telephone the undersigned at the number listed below.

Respectfully submitted,

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MINNICH & McKEE, LLP



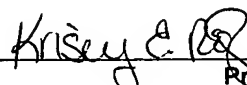
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November 16, 2005
Date

CERTIFICATE OF MAILING

Under 37 C.F.R. § 1.8, I certify that this Amendment is being

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